

1           RANGE-BASED CACHE CONTROL SYSTEM AND METHOD

2           ABSTRACT OF THE DISCLOSURE

3           The present invention relates to disk drive having a cache control system that generates  
4           scan results that permit response to a host command using existing cached data having a logical  
5           block address (LBA) range that overlaps a host command LBA range. The cache control system  
6           forms variable length segments of memory clusters in a cache memory for caching disk data in  
7           contiguous LBA ranges. The cached LBA ranges are scanned for segments having LBA ranges  
8           overlapping with an LBA range of a host command. The cache control system is effective in  
9           exploiting any existing overlapping cache data.